● PRINTER RUSH ●

(PTO ASSISTANCE)

Application :	10/607930	**Examiner :**	Desai	**GAU :**	1625
From:	J. Black	**Location:**	(IDC) PMF FDC	**Date:**	5/17/05

Tracking #: 06095502 Week Date: 4/18/05

DOC CODE	DOC DATE	MISCELLANEOUS
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☐ IDS	_____	☐ Foreign Priority
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☐ IIFW	_____	☐ Fees
☐ SRFW	_____	☐ Other
☐ DRW	_____	
☐ OATH	_____	
☐ 312	_____	
☐ SPEC	_____	

[RUSH] **MESSAGE:** Claims are illegible data is hard to read.

Please resolve.

[XRUSH] **RESPONSE:** corrected

See Attachments

INITIALS: KP

NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.

REV 10/04

10/607930

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FACSIMILE

May 24, 2005	Number of Pages: 11	Please call the following number if the message you receive is incomplete or not legible: (919) 484-2301
C/M	42565.0225.4	

To:	Company:	Fax:	Phone:
Kay Pinkney	USPTO	1.703.308.6642	

Further to our telephone conversation, attached is a copy of the amendment as filed on February 10, 2005.

Thank you,

David S. Bradin

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re **PATENT** application of:

	Balwinder S. Bhatti	) **Conf. No.: 8695**
Serial No:	**10/607,930**	) **Art Unit: 1625**
Filed:	**June 27, 2003**	) **Examiner: Rita J. Desai**
Title:	**N-Aryl Diazaspiroazacyclic Compounds and Methods of Preparation and Use Thereof**	)**Docket No.: T103 1530.1**

Fax to : 1.703.872.9306

CERTIFICATE OF FACSIMILE TRANSMISSION

Mail Stop: Non Fee Amendment
Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I hereby certify that the following papers are being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Amendment Transmittal Letter - 2 copies =	2 pages
Amendment -	7 pages
Certificate of Facsmile	1 page
Fax cover sheet	1 page

Total number of pages = 11 pages including this cover page

February 10, 2005
Date

Donnie S. Dietrich
(Printed Name of Person Faxing Corresp.)

Donnie S Dietrich
(Signature of Person Faxing Corresp.)

In re **PATENT** application of:
Serial No: 10/607,930
Filed: **June 27, 2003**

Title: **N-Aryl Diazaspiroazacyclic Compounds and Methods of Preparation and Use Thereof**

AMENDMENT TRANSMITTAL LETTER

Mail Stop: Non-Fee Amendment
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an amendment in the above-identified application.

☒ No additional fee is required.
☐ A check in payment of the fee is attached.

☐ The Commissioner is hereby authorized to charge the Amendment Fee of $____.00 to our Deposit Account No. **09-0528**.
☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to our Deposit Account No. **09-0528**.

Respectfully submitted,

February 10, 2005
Date

David S. Bradin
Reg. No. 37,783

Womble Carlyle Sandridge & Rice, PLLC
P.O. Box 7037
Atlanta, GA 30357-0037
(919) 484-2382 (Telephone)
(404) 888-7490 (Facsimile)
Docket Number: T103 1530.1 (42565.0225.4)

Atty Dkt. No. T103 1530.1

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Balwinder S. Bhatti		
Serial No:	10/607,930	Art Unit:	1625
Filed:	June 27, 2003	Examiner:	Desai, R.
For:	**N-Aryl Diazaspiroazacyclic Compounds and Methods of Preparation and Use Thereof**		

SUPPLEMENTAL AMENDMENT

Mail Stop: Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

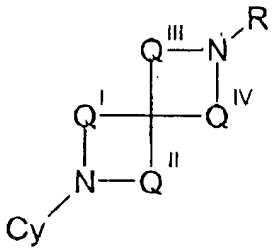
This supplemental amendment is being made in further response to the Office Action mailed on September 27, 2004, in connection with the above-identified application. A previous amendment was sent to the U.S. Patent and Trademark Office by facsimile transmission on December 22, 2004.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper. **Remarks/Arguments** begin on page 8 of this paper.

In the Claims

1. (Previously Presented) A diazaspiro nonane compound having the following formula:

Formula 1



and pharmaceutically acceptable salts thereof,

wherein Q^{I} is $(CZ_2)_u$, Q^{II} is $(CZ_2)_v$, Q^{III} is $(CZ_2)_w$, and Q^{IV} is $(CZ_2)_x$,

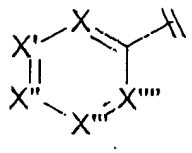
u, v, w and x are individually 0, 1, 2, 3 or 4, preferably 0, 1, 2 or 3,

and the values of u, v, w and x are selected such that the ring is a diazaspiro nonane,

R is hydrogen, lower alkyl, acyl, alkoxycarbonyl or aryloxycarbonyl,

Z is, individually, selected from the group consisting of hydrogen, alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl and substituted arylalkyl;

Cy is a six membered ring of the formula:



where one of X, X', X", X"' and X"" is nitrogen, and the others are carbon bonded to a substituent species,

wherein "substituent species" are, individually, selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo, -OR', -NR'R", $-CF_3$, -CN, $-NO_2$, $-C_2R'$, -SR', $-N_3$, -C(=O)NR'R", -NR'C(=O) R", -C(=O)R', -C(=O)OR', -OC(=O)R', $-O(CR'R")_rC(=O)R'$, $-O(CR'R")_rNR"C(=O)R'$, $-O(CR'R")_rNR"SO_2R'$, -OC(=O)NR'R", NR'C(=O)O R", $-SO_2R'$, $-SO_2NR'R"$, and $-NR'SO_2R"$,

where R' and R" are individually hydrogen, C_1-C_8 alkyl, cycloalkyl, aryl, or arylalkyl, and r is an integer from 1 to 6, or R' and R" can combine to form a cyclic functionality, and

wherein the term "substituted" as applied to alkyl, aryl, cycloalkyl and the like refers to the substituents described above, starting with halo and ending with $-NR'SO_2R"$.

Claims 2-3. (Cancelled)

4. (Previously Presented) The compound of claim 1, wherein X''' is nitrogen.

Claim 5. (Cancelled)

6. (Original) The compound of claim 1, wherein X, X" and X"" are carbon bonded to a substituent species.

7. (Original) The compound of claim 6, where the substituent species at X, X" and X"" are hydrogen.

Claims 8-10. (Cancelled)

11. (Previously Presented) A pharmaceutical composition including a compound of claim 1 along with a pharmaceutically acceptable carrier.

Claims 12-40. (Cancelled)

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41. (currently Amended) A compound selected from the group consisting of:

7-(3-pyridyl)-1,7-diazaspiro[4.4]nonane

~~7-(5-pyrimidinyl)-1,7-diazaspiro[4.4]nonane~~

~~7-(5-isoxazolyl)-1,7-diazaspiro[4.4]nonane~~

~~7-(5-isothiazolyl)-1,7-diazaspiro[4.4]nonane~~

~~7-(5-(1,2,4-oxadiazol)yl)-1,7-diazaspiro[4.4]~~nonane

~~7-(2-(1,3,4-oxadiazol)yl)-1,7-diazaspiro[4.4]~~nonane

~~7-(2-pyrazinyl)-1,7-diazaspiro[4.4]~~nonane

~~7-(3-pyridazinyl)-1,7-diazaspiro[4.4]~~nonane

7-(5-methoxy-3-pyridyl)-1,7-diazaspiro[4.4]nonane

7-(5-cyclopentyloxy-3-pyridyl)-1,7-diazaspiro[4.4]nonane

7-(5-phenoxy-3-pyridyl)-1,7-diazaspiro[4.4]nonane

7-(5-(4-hydroxyphenoxy)-3-pyridyl)-1,7-diazaspiro[4.4]nonane

7-(5-ethynyl-3-pyridyl)-1,7-diazaspiro[4.4]nonane

7-(6-chloro-3-pyridyl)-1,7-diazaspiro[4.4]nonane

~~7-(6-methoxy-3-pyridazinyl)-1,7-diazaspiro[4.4]nonane~~

1-(3-pyridyl)-1,7-diazaspiro[4.4]nonane

~~1-(5-pyrimidinyl)-1,7-diazaspiro[4.4]nonane~~

~~1-(5-isoxazolyl)-1,7-diazaspiro[4.4]nonane~~

1-(5-isothiazolyl)-1,7-diazaspiro[4.4]nonane

~~1-(5-(1,2,4-oxadiazol)yl)-1,7-diazaspiro[4.4]nonane~~

~~1-(2-(1,3,4-oxadiazol)yl)-1,7-diazaspiro[4.4]~~nonane

~~1-(2-pyrazinyl)-1,7-diazaspiro[4.4]~~nonane

~~1-(3-pyridazinyl)-1,7-diazaspiro~~[4.4]~~nonane~~

1-methyl-7-(3-pyridyl)-1,7-diazaspiro[4.4]nonane

~~1-methyl-7-(5-pyrimidinyl)-1,7-diazaspiro[4.4]nonane~~

~~1-methyl-7-(5-isoxazolyl)-1,7-diazaspiro[4.4]no~~nane

~~1-methyl-7-(5-isothiazolyl)-1,7-diazaspiro~~[4.4]nonane

~~1-methyl-7-(5-(1,2,4-oxadiazol)yl)-1,7-~~diazaspiro~~[4.4]nonane~~

~~1-methyl-7-(2-(1,3,4-oxadiazol)yl)-1,7-diaz~~aspiro~~[4.4]nonane~~

1-methyl-~~7-(2-pyrazinyl)-1,7-diaz~~aspiro[4.4]~~nonane~~

~~1-methyl-7-(3-~~pyridazinyl)~~-1,7-diazaspiro[4.4]~~nonane

1-methyl-7-(5-methoxy-3-pyridyl)-1,7-diazaspiro[4.4]nonane

1-methyl-7-(5-cyclopentyloxy-3-pyridyl)-1,7-diazaspiro[4.4]nonane

1-methyl-7-(5-phenoxy-3-pyridyl)-1,7-diazaspiro[4.4]nonane

1-methyl-7-(5-(4-hydroxyphenoxy)-3-pyridyl)-1,7-diazaspiro[4.4]nonane

1-methyl-7-(5-ethynyl-3-pyridyl)-1,7-diazaspiro[4.4]nonane

1-methyl-7-(6-chloro-3-pyridyl)-1,7-diazaspiro[4.4]nonane

~~1-methyl-7-(6-methoxy-3-pyridazinyl)-1,7-~~diazaspiro~~[4.4]nonane~~

7-methyl-1-(3-pyridyl)-1,7-diazaspiro[4.4]nonane

~~7-~~methyl-1-(5-pyrimidinyl)~~-1,7-diazaspiro[4.4~~]nonane

~~7-methyl-1-(5-isoxazolyl)-1,7-diazaspiro[4.4]~~nonane

~~7-~~methyl-1-(5-isothiazolyl)~~-1,7-diazaspiro[4.4~~]nonane

~~7-methyl-1-(5-(1,2,4-oxadiazol)yl)-1,7-diazaspiro[4.4]~~nonane

~~7-methyl-1-(2-(1,3,4-oxadiazol)yl)-1,7-diazaspiro[4.4]nonane~~

10/607930

7-methyl-1-(2-pyrazinyl)-1,7-diazaspiro[4.4]nonane

7-methyl-1-(3-pyridazinyl)-1,7-diazaspiro[4.4]nonane

2-(3-pyridyl)-2,7-diazaspiro[4.4]nonane

2-(5-pyrimidinyl)-2,7-diazaspiro[4.4]nonane

2-(5-isoxazolyl)-2,7-diazaspiro[4.4]nonane

2-(5-isothiazolyl)-2,7-diazaspiro[4.4]nonane

2-(5-(1,2,4-oxadiazol)yl)-2,7-diazaspiro[4.4]nonane

2-(2-(1,3,4-oxadiazol)yl)-2,7-diazaspiro[4.4]nonane

2-(2-pyrazinyl)-2,7-diazaspiro[4.4]nonane

2-(3-pyridazinyl)-2,7-diazaspiro[4.4]nonane

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2-(5-cyclopentyloxy-3-pyridyl)-2,7-diazaspiro[4.4]nonane

2-(5-phenoxy-3-pyridyl)-2,7-diazaspiro[4.4]nonane

2-(5-(4-hydroxyphenoxy)-3-pyridyl)-2,7-diazaspiro[4.4]nonane

2-(5-ethynyl-3-pyridyl)-2,7-diazaspiro[4.4]nonane

2-(6-chloro-3-pyridyl)-2,7-diazaspiro[4.4]nonane

2-(6-methoxy-3-pyridazinyl)-2,7-diazaspiro[4.4]nonane

2-methyl-7-(3-pyridyl)-2,7-diazaspiro[4.4]nonane

2-methyl-7-(5-methoxy-3-pyridyl)-2,7-diazaspiro[4.4]nonane

2-methyl-7-(5-phenoxy-3-pyridyl)-2,7-diazaspiro[4.4]nonane

6-(3-pyridyl)-1,6-diazaspiro[3.5]nonane

1-methyl-6-(3-pyridyl)-1,6-diazaspiro[3.5]nonane

2-(3-pyridyl)-2,5-diazaspiro[3.5]nonane

5-methyl-2-(3-pyridyl)-2,5-diazaspiro[3.5]nonane and

pharmaceutically acceptable salts thereof.

Claim 42. (Cancelled)

43. (Previously Presented) A pharmaceutical composition comprising an effective amount of a compound of claim 41 along with a pharmaceutically acceptable carrier.

Claim 44. (Cancelled)

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Restriction Requirement

Claim 41 was inadvertently left un-amended in the previous amendment. Claim 41 has now been amended to delete those compounds in which Cy is not a pyridine ring, and thus all compounds fall within Group I.

Conclusion

It is believed that Claims 1, 4, 6, 7, 11, 41 and 43 are in condition for allowance. The Examiner is encouraged to contact Applicants' undersigned representative if she has any questions regarding the above.

Respectfully submitted,

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Reg. No. 37,783
Attorney for Applicant

Date: February 10, 2004
Docket: T103 1530.1

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